WHAT IS CLAIMED IS:

1. A method of detecting the presence of at least one analyte in a sample, said method comprising:

(a) producing at least one surface bound hybridization complex on the surface of an array of distinct tag complements immobilized on a surface of a solid support, wherein said surface bound hybridization complex comprises a tag complement hybridized to a tag, wherein said tag is part of a tagged affinity ligand that is bound to said analyte;

(b) detecting the presence said at least one surface bound hybridization complex; and

(c) relating the presence of said at least one surface bound hybridization complex to the presence of said at least one analyte in said sample to determine the presence of at least one analyte in a sample.

2. The method according to Claim 1, wherein said producing step comprises:

(i) contacting said sample with a population of tagged affinity ligands under conditions sufficient to produce said at least one analyte/tagged affinity ligand complex; and

(ii) contacting said at least one analyte/tagged affinity ligand complex produced in step (i) with said array of tag complements under hybridization conditions to produce said at least one surface bound hybridization complex.

3. The method according to Claim 1, wherein said tag and tag complements are nucleic acids.

4. The method according to Claim 3, wherein the magnitude of any difference in hybridization efficiency between any two tag-tag complement pairs employed in said assay does not exceed about 10 fold.

5. The method according to Claim 4, wherein the magnitude of any difference in hybridization efficiency between any two tag-tag complement pairs employed in said method does not exceed about 5 fold.

6. The method according to Claim 5, wherein the magnitude of any difference in hybridization efficiency between any two tag-tag complement pairs employed in said method does not exceed about 3 fold.

7. The method according to Claim 3, wherein any tag employed in said assay has a level of cross-hybridization that does not exceed about 10 %.

8. The method according to Claim 7, wherein any tag employed in said method has a level of cross-hybridization that does not exceed about 2 %.

9. The method according to Claim 8, wherein any tag employed in said method has a level of cross-hybridization that does not exceed about 1 %.

10. The method according to Claim 1, wherein said analyte is a polypeptide.

11. The method according to Claim 10, wherein said polypeptide is a protein.

12. The method according to Claim 1, wherein said tagged affinity ligands comprise an antibody or binding fragment thereof.

13. The method according to Claim 1, wherein said tagged affinity ligands are labeled.

14. The method according to Claim 1, wherein said method is a method of determining the presence of a plurality of analytes in said sample.

15. The method according to Claim 14, wherein said plurality of analytes are proteins.

16. A kit for use in an analyte detection assay, said kit comprising:

(a) at least one of:

(i) an array of distinct tag complements immobilized on the surface of a solid support; and

(ii) a set of distinct tagged affinity ligands; and

(b) means for identifying the physical location on said array to which each distinct tagged affinity ligand of said set hybridizes.

17. The kit according to Claim 16, wherein said kit comprises both said array and said set of tagged affinity ligands.

18. The kit according to Claim 16, wherein the magnitude of any difference in hybridization efficiency between any two tag-tag complement pairs taken from said array and set of tagged affinity ligands does not exceed about 10 fold.

19. The kit according to Claim 16, wherein any tag found in said set of tagged affinity ligands has a level of cross-hybridization with respect to said array that does not exceed about 10 %.

20. The kit according to Claim 16, wherein said means comprises a medium that includes: (a) identifying information about the physical location on said array to which each distinct tagged affinity ligand hybridizes; or (b) a means for remotely accessing said information.

21. The kit according to Claim 20, wherein said means for remotely accessing said information is a website address.

22. An array of distinct tag complements immobilized on a solid support, wherein said

tag complements are members of a collection of tag-tag complement pairs in which the magnitude of any difference in hybridization efficiency between any two tag-tag complement pairs in said collection does not exceed about 10 fold.

23. The array according to Claim 22, wherein said tag complements are nucleic acids.

24. The array according to Claim 22, wherein said array has a density that does not exceed about 400 spots/cm^2.

25. A set of distinct tagged gene affinity ligands comprising a tag domain and an affinity ligand, wherein said tag domains are members of a collection of tag-tag complement pairs in which the magnitude of any difference in hybridization efficiency between any two tag-tag complement pairs in said collection does not exceed about 10 fold.

26. The set according to Claim 25, wherein any tag domain has a level of cross-hybridization with respect to said tag complements of said collection that does not exceed about 10 %.

27. The set according to Claim 25, wherein said set comprises at least 20 distinct tagged affinity ligands.